

REMARKS

Claims 1, 5-7, 9-11, 13-18, 21, 23, 26 and 31-39 are now pending in the application. Claims 14 and 18 are withdrawn. Claims 1, 5-7, 10, 11, 13, 23, 26-28 and 31-33 are amended herein. Claims 9, 21, and 34-39 are cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 5, 7, 9, 13, 16, 17, 21, 26-28 and 36-39 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lin et al. (U.S. Pat. No. 6,011,337). This rejection is respectfully traversed. Notwithstanding Applicant's traverse and solely in the interest of expediting prosecution, Applicant amends claim 1.

Amended claim 1 calls for A motor comprising: a first magnetic body; a second magnetic body; and a third magnetic body disposed between the first and second magnetic bodies, the third magnetic body being relatively movable in a prescribed direction in relation to the first and second magnetic bodies. The first magnetic body and second magnetic body respectively comprise a structure in which a plurality of electromagnetic coils capable of being alternately excited to opposite polarities is disposed in order. The third magnetic body comprises a structure in which permanent magnets alternately magnetized to opposite polarities are disposed in order. The first magnetic body and the second magnetic body are structured such that an electromagnetic coil of the first magnetic body and an electromagnetic coil of the

second magnetic body are disposed so as to mutually possess an array pitch difference.

The magnetic structure further comprises a coil exciting circuit for supplying an exciting current including frequency signals having different phases to the electromagnetic coils of the first and second magnetic bodies. The pair formed from the first and second magnetic bodies and one side of the third magnetic body form a rotor, and the pair formed from the first and second magnetic bodies and the other side of the third magnetic body form a stator. An equal number of magnet poles of the rotor and poles of the electromagnetic coil for the phase are formed. A rotation speed detector that detects the rotation speed of the rotor being set in a direction perpendicular to an axis of the rotor is provided. The coil exciting circuit controls excitation of the electromagnetic coils of the first and second magnetic body via the exciting current supplied to the electromagnetic coils, the phase of the current being corrected based on a rotational speed of the rotor.

Thus, among other elements, claim 1 calls for the number of magnet poles of the rotor to be equal to the number of poles of the electromagnetic coil for the phase. Claim 1 also calls for a rotation speed detector that detects the rotation speed of the rotor, the detector being set in a direction perpendicular to an axis of the rotor. The prior art fails to teach and/or suggest the above subject matter of claim 1. As such, the prior art cannot compensate for an imbalance of torque and weight due to axis vibration caused by providing unequal force to the axis of the rotor from the electromagnetic coils which are not excited.

In view of the foregoing, it can be appreciated that Lin cannot anticipate claim 1 or any of the above claims depending therefrom. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claims 34 and 35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al. (U.S. Pat. No. 6,005,320). This rejection is respectfully traversed. Claims 34 and 35 are cancelled thereby rendering this rejection moot.

REJECTION UNDER 35 U.S.C. § 103

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (U.S. Pat. No. 6,011,337) in view of Karita et al. (U.S. Pat. No. 4,868,431). This rejection is respectfully traversed. Claim 6 depends from claim 1 and should be allowable for at least the same reasons as set forth above.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (U.S. Pat. No. 6,011,337) in view of Tanase et al. (U.S. Pat. No. 6,327,232). This rejection is respectfully traversed. Claims 10 and 11 depend from claim 1 and should be allowable for at least the same reasons as set forth above.

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (U.S. Pat. No. 6,011,337) in view of Caamono (U.S. Pat. No. 6,049,197). This rejection is respectfully traversed. Claim 15 depends from claim 1 and should be allowable for at least the same reasons as set forth above.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (U.S. Pat. No. 6,011,337) in view of Brugger (U.S. Pat. No. 3,290,787). This

rejection is respectfully traversed. Claim 23 depends from claim 1 and should be allowable for at least the same reasons as set forth above.

Claims 31-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (U.S. Pat. No. 6,011,337) in view of Kim et al. (U.S. Pat. No. 6,005,320). This rejection is respectfully traversed. Claims 31-33 depend from claim 1 and should be allowable for at least the same reasons as set forth above.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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